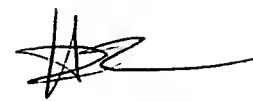


520/10420



OIPE

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/997,792

DATE: 12/07/2001  
TIME: 12:58:44

Input Set : A:\X-10242 Sequence Listing.txt  
Output Set: N:\CRF3\12072001\I997792.raw

**ENTERED**

```

3 <110> APPLICANT: Hermeling, Ronald
4     Hoffmann, James
5     Narasimhan, Chakravarthy
7 <120> TITLE OF INVENTION: GLUCAGON-LIKE PEPTIDE-1 CRYSTALS
9 <130> FILE REFERENCE: X-10242
C--> 11 <140> CURRENT APPLICATION NUMBER: US/09/997,792
C--> 12 <141> CURRENT FILING DATE: 2001-11-30
14 <160> NUMBER OF SEQ ID NOS: 29
16 <170> SOFTWARE: PatentIn version 3.0
18 <210> SEQ ID NO: 1
19 <211> LENGTH: 31
20 <212> TYPE: PRT
21 <213> ORGANISM: Homo sapiens
23 <400> SEQUENCE: 1
25 His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
26 1           5           10           15
28 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
29           20           25           30
31 <210> SEQ ID NO: 2
32 <211> LENGTH: 31
33 <212> TYPE: PRT
C--> 34 <213> ORGANISM: Artificial
36 <220> FEATURE:
37 <223> OTHER INFORMATION: synthetic construct
39 <220> FEATURE:
40 <221> NAME/KEY: VARIANT
41 <222> LOCATION: (1)..(1)
42 <223> OTHER INFORMATION: Xaa at position 1 is L-histidine, D-histidine, desamino-
histidine
43     , 2-amino-histidine, beta-hydroxy-histidine, homohistidine, alpha
44     -fluoromethyl-histidine, and alpha-methyl-histidin
47 <220> FEATURE:
48 <221> NAME/KEY: VARIANT
49 <222> LOCATION: (2)..(2)
50 <223> OTHER INFORMATION: Xaa at position 2 is Ala, Gly, Val, Thr, Met, Ile, and alpha-
meth
51     yl-Al
54 <220> FEATURE:
55 <221> NAME/KEY: VARIANT
56 <222> LOCATION: (15)..(15)
57 <223> OTHER INFORMATION: Xaa at position 15 is Glu, Gln, Ala, Thr, Ser, and Gly
60 <220> FEATURE:
61 <221> NAME/KEY: VARIANT
62 <222> LOCATION: (21)..(21)
63 <223> OTHER INFORMATION: Xaa at position 21 is Glu, Gln, Ala, Thr, Ser, and Gly
66 <220> FEATURE:
67 <221> NAME/KEY: VARIANT
68 <222> LOCATION: (31)..(31)

```

69 <223> OTHER INFORMATION: Xaa at position 31 is NH2 and Gly-OH

## RAW SEQUENCE LISTING

DATE: 12/07/2001

PATENT APPLICATION: US/09/997,792

TIME: 12:58:44

Input Set : A:\X-10242 Sequence Listing.txt

Output Set: N:\CRF3\12072001\I997792.raw

```

72 <400> SEQUENCE: 2
W--> 74 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Xaa Gly
      75 1          5          10          15
W--> 77 Gln Ala Ala Lys Xaa Phe Ile Ala Trp Leu Val Lys Gly Arg Xaa
      78          20          25          30
80 <210> SEQ ID NO: 3
81 <211> LENGTH: 29
82 <212> TYPE: PRT
C--> 83 <213> ORGANISM: Artificial
      85 <220> FEATURE:
      86 <223> OTHER INFORMATION: synthetic construct
      88 <220> FEATURE:
      89 <221> NAME/KEY: VARIANT
      90 <222> LOCATION: (28)..(28)
      91 <223> OTHER INFORMATION: Xaa at position 28 is Lys or absent
      94 <220> FEATURE:
      95 <221> NAME/KEY: VARIANT
      96 <222> LOCATION: (29)..(29)
      97 <223> OTHER INFORMATION: Xaa at position 29 is Gly or absent;and, if Xaa at position
28 is
      98 absent, Xaa at position 29 must be absen
      101 <400> SEQUENCE: 3
      103 His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
      104 1          5          10          15
W--> 106 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa
      107          20          25
109 <210> SEQ ID NO: 4
110 <211> LENGTH: 31
111 <212> TYPE: PRT
C--> 112 <213> ORGANISM: Artificial
      114 <220> FEATURE:
      115 <223> OTHER INFORMATION: synthetic construct
      117 <220> FEATURE:
      118 <221> NAME/KEY: VARIANT
      119 <222> LOCATION: (1)..(1)
      120 <223> OTHER INFORMATION: Xaa at position 1 is 4-imidazopropionyl, 4-imidazoacetyl, or
4-im
      121 idazo-a, a dimethyl-acety
      124 <220> FEATURE:
      125 <221> NAME/KEY: VARIANT
      126 <222> LOCATION: (20)..(20)
      127 <223> OTHER INFORMATION: Xaa at position 20 is Lys or Arg
      130 <220> FEATURE:
      131 <221> NAME/KEY: VARIANT
      132 <222> LOCATION: (31)..(31)
      133 <223> OTHER INFORMATION: Xaa at position 31 is Gly-OH or NH2
      136 <400> SEQUENCE: 4
W--> 138 Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
      139 1          5          10          15
W--> 141 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Xaa
      142          20          25          30

```

## RAW SEQUENCE LISTING

DATE: 12/07/2001

PATENT APPLICATION: US/09/997,792

TIME: 12:58:44

Input Set : A:\X-10242 Sequence Listing.txt

Output Set: N:\CRF3\12072001\I997792.raw

```

144 <210> SEQ ID NO: 5
145 <211> LENGTH: 31
146 <212> TYPE: PRT
C--> 147 <213> ORGANISM: Artificial
149 <220> FEATURE:
150 <223> OTHER INFORMATION: synthetic construct
152 <220> FEATURE:
153 <221> NAME/KEY: VARIANT
154 <222> LOCATION: (2)..(2)
155 <223> OTHER INFORMATION: Xaa at position 2 is Val
158 <400> SEQUENCE: 5
W--> 160 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
161 1 5 10 15
163 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
164 20 25 30
166 <210> SEQ ID NO: 6
167 <211> LENGTH: 29
168 <212> TYPE: PRT
C--> 169 <213> ORGANISM: Artificial
171 <220> FEATURE:
172 <223> OTHER INFORMATION: synthetic construct
174 <220> FEATURE:
175 <221> NAME/KEY: VARIANT
176 <222> LOCATION: (13)..(13)
177 <223> OTHER INFORMATION: Xaa at position 13 is Glu, Gln, Ala, Thr, Ser or Gly
180 <220> FEATURE:
181 <221> NAME/KEY: VARIANT
182 <222> LOCATION: (19)..(19)
183 <223> OTHER INFORMATION: Xaa at position 19 is Glu, Gln, Ala, Thr, Ser or Gly
186 <220> FEATURE:
187 <221> NAME/KEY: VARIANT
188 <222> LOCATION: (29)..(29)
189 <223> OTHER INFORMATION: Xaa at position 29 is Gly or absent
192 <400> SEQUENCE: 6
W--> 194 Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Xaa Gly Gln Ala
195 1 5 10 15
W--> 197 Ala Lys Xaa Phe Ile Ala Trp Leu Val Lys Gly Arg Xaa
198 20 25
200 <210> SEQ ID NO: 7
201 <211> LENGTH: 30
202 <212> TYPE: PRT
C--> 203 <213> ORGANISM: Artificial
205 <220> FEATURE:
206 <223> OTHER INFORMATION: synthetic construct
208 <220> FEATURE:
209 <221> NAME/KEY: VARIANT
210 <222> LOCATION: (19)..(19)
211 <223> OTHER INFORMATION: Xaa at position 19 is Lys or Arg
214 <220> FEATURE:

```

## RAW SEQUENCE LISTING

DATE: 12/07/2001

PATENT APPLICATION: US/09/997,792

TIME: 12:58:44

Input Set : A:\X-10242.Sequence Listing.txt

Output Set: N:\CRF3\12072001\I997792.raw

```

215 <221> NAME/KEY: VARIANT
216 <222> LOCATION: (30)..(30)
217 <223> OTHER INFORMATION: Xaa at position 30 is Gly or is absent; and Lys at position
27 ma
218 y be acylate
221 <400> SEQUENCE: 7
223 Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln
224 1 5 10 15
W--> 226 Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Xaa
227 20 25 30
229 <210> SEQ ID NO: 8
230 <211> LENGTH: 28
231 <212> TYPE: PRT
C--> 232 <213> ORGANISM: Artificial
234 <220> FEATURE:
235 <223> OTHER INFORMATION: synthetic construct
237 <400> SEQUENCE: 8
239 His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
240 1 5 10 15
242 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys
243 20 25
245 <210> SEQ ID NO: 9
246 <211> LENGTH: 29
247 <212> TYPE: PRT
C--> 248 <213> ORGANISM: Artificial
250 <220> FEATURE:
251 <223> OTHER INFORMATION: synthetic construct
253 <400> SEQUENCE: 9
255 His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
256 1 5 10 15
258 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly
259 20 25
261 <210> SEQ ID NO: 10
262 <211> LENGTH: 30
263 <212> TYPE: PRT
C--> 264 <213> ORGANISM: Artificial
266 <220> FEATURE:
267 <223> OTHER INFORMATION: synthetic construct
269 <400> SEQUENCE: 10
271 His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
272 1 5 10 15
274 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
275 20 25 30
277 <210> SEQ ID NO: 11
278 <211> LENGTH: 31
279 <212> TYPE: PRT
C--> 280 <213> ORGANISM: Artificial
282 <220> FEATURE:
283 <223> OTHER INFORMATION: synthetic construct
285 <400> SEQUENCE: 11

```

## RAW SEQUENCE LISTING

DATE: 12/07/2001

PATENT APPLICATION: US/09/997,792

TIME: 12:58:44

Input Set : A:\X-10242 Sequence Listing.txt

Output Set: N:\CRF3\12072001\I997792.raw

```

287 His Ala Gln Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
288 1          5          10          15
290 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
291          20          25          30
293 <210> SEQ ID NO: 12
294 <211> LENGTH: 31
295 <212> TYPE: PRT
C--> 296 <213> ORGANISM: Artificial
298 <220> FEATURE:
299 <223> OTHER INFORMATION: synthetic construct
301 <220> FEATURE:
302 <221> NAME/KEY: VARIANT
303 <222> LOCATION: (3)..(3)
304 <223> OTHER INFORMATION: Xaa at position 3 is D-Gln
307 <400> SEQUENCE: 12
W--> 309 His Ala Xaa Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
310 1          5          10          15
312 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
313          20          25          30
315 <210> SEQ ID NO: 13
316 <211> LENGTH: 31
317 <212> TYPE: PRT
C--> 318 <213> ORGANISM: Artificial
320 <220> FEATURE:
321 <223> OTHER INFORMATION: synthetic construct
323 <400> SEQUENCE: 13
325 His Ala Glu Gly Thr Phe Thr Ser Asp Thr Ser Lys Tyr Leu Glu Gly
326 1          5          10          15
328 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
329          20          25          30
331 <210> SEQ ID NO: 14
332 <211> LENGTH: 31
333 <212> TYPE: PRT
C--> 334 <213> ORGANISM: Artificial
336 <220> FEATURE:
337 <223> OTHER INFORMATION: synthetic construct
339 <400> SEQUENCE: 14
341 His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Lys Tyr Leu Glu Gly
342 1          5          10          15
344 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
345          20          25          30
347 <210> SEQ ID NO: 15
348 <211> LENGTH: 30
349 <212> TYPE: PRT
C--> 350 <213> ORGANISM: Artificial
352 <220> FEATURE:
353 <223> OTHER INFORMATION: synthetic construct
355 <400> SEQUENCE: 15
357 His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

```

## VERIFICATION SUMMARY

PATENT APPLICATION: US/09/997,792

DATE: 12/07/2001

TIME: 12:58:45

Input Set : A:\X-10242 Sequence Listing.txt

Output Set: N:\CRF3\12072001\I997792.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application Number  
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:34 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:2  
L:74 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:77 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:83 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:3  
L:106 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:112 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:4  
L:138 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:141 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:147 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:5  
L:160 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5  
L:169 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:6  
L:194 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:197 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:203 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:7  
L:226 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:232 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:8  
L:248 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:9  
L:264 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:10  
L:280 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:11  
L:296 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:12  
L:309 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12  
L:318 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:13  
L:334 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:14  
L:350 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:15  
L:366 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:16  
L:382 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:17  
L:398 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:18  
L:414 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:19  
L:427 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19  
L:436 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:20  
L:452 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:21  
L:465 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21  
L:474 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:22  
L:490 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:23  
L:503 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23  
L:512 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:24  
L:528 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:25  
L:544 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:26  
L:560 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:27  
L:573 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27  
L:582 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:28  
L:598 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:29